Claims

What is claimed is:

1. A method for manufacturing an organic electroluminescent display, comprising the steps of:

forming a plurality of first display electrodes arranged in parallel on a substantially transparent substrate;

forming an insulating layer on the transparent substrate, the insulating layer including a plurality of slots perpendicular to the first display electrodes for exposing the first display electrodes;

forming insulating ramparts on the exposed first display electrodes, the portion of the insulating ramparts away from the substrate further forming overhangs, and the portion of the cathode ramparts proximate to the substrate having sufficiently high cross-linking for increasing the adhesion between the insulating ramparts and the first display electrodes;

partially removing the insulating layer through the masking effect of the overhangs for exposing the first display electrode;

forming an organic electroluminescent material on the exposed first display electrodes; and

forming a plurality of second display electrodes on the organic electroluminescent material.

2. The method according to claim 1, wherein the thickness of the insulating ramparts is in a range of 1-5μm.

3. The method according to claim 1, wherein the angle between the substrate and each overhang is in a range of 40-80 degrees.

4. The method according to claim 1, wherein the step of forming the insulating ramparts further comprises the steps of:

forming a blanket of photosensitive material on the insulating layer;

illuminating the photosensitive material from one side of the substrate opposite to the first display electrodes with the insulating layer as photo masks; and

processing the photosensitive material to expose the insulating layer.

5. The method according to claim 1, wherein the step of partially removing the insulating layer by means of the masking effect of the overhangs is achieved by an anisotropic etching process.

6. The method according to claim 1, wherein the cross-linking at the portion of the insulating ramparts proximate to the substrate is stronger than at the portion away from the substrate.

7. A method for manufacturing an organic electroluminescent display, comprising the steps of:

forming a plurality of first display electrodes of high light transmission on a substantially transparent substrate;

forming a substantially opaque insulating layer on the transparent substrate;

forming a plurality of slots at predetermined locations on the opaque insulating layer;

forming a photosensitive insulating layer on the substrate;

illuminating the photosensitive insulating layer from light beams passing through the substrate and the first display electrodes in sequence with the opaque insulating layer as photo masks;

removing the un-illuminated portion of the photosensitive insulating layer to form insulating ramparts;

proceeding an anisotropic etching process to the opaque insulating layer for exposing the first display electrodes;

forming an organic electroluminescent material on the exposed first display electrodes; and

forming a plurality of second display electrodes on the organic electroluminescent material.

8. The method according to claim 7, wherein the thickness of the insulating ramparts is in a range of 1-5μm.

9. The method according to claim 7, wherein overhangs are on the portion of the insulating ramparts away from the substrate, and the portion of the insulating ramparts proximate to the substrate having a sufficiently high cross-linking for enhancing the adhesion between insulating ramparts and the first display electrodes.

10. The method according to claim 9, wherein the angle between the substrate and each overhang is in a range of 40-80 degrees.

11. The method according to claim 7, wherein the cross-linking at the portion of the insulating ramparts proximate to the substrate is more significant than at the portion away from the substrate.

12. An organic electroluminescent display, comprising:

a plurality of first display electrodes of high light transmission formed in parallel on a substantially transparent substrate;

an opaque insulating layer having slots of stripe shapes formed on the first display electrodes, the slots are perpendicular to the first display electrodes;

a plurality of insulating ramparts of reverse-tapered cross-section formed on first display electrodes at the slots, the insulating ramparts including overhangs on the portion away from the substrate such that the insulating layer is formed utilizing

an anisotropic etching process so as to be in parallel to the insulating ramparts and the first display electrodes are exposed partially;

an organic electroluminescent material disposed on the exposed first display electrodes; and

a plurality of second display electrodes formed in parallel on the organic electroluminescent material, the second display electrodes being perpendicular to the first display electrodes.

13. The organic electroluminescent display according to claim 12, wherein the angle between the substrate and each overhang is in a range of 40-80 degrees.

14. The organic electroluminescent display according to claim 12, wherein the thickness of the insulating ramparts is in a range of 1-5μm.

15. The organic electroluminescent display according to claim 12, wherein the cross-linking at the portion of the insulating ramparts proximate to the substrate is more significant than at the portion away from the substrate.